



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/851,105	05/09/2001	Tatsuya Fukunishi	R2184.0100/P100	2323
24998	7590	05/17/2004	EXAMINER	
DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP 2101 L STREET NW WASHINGTON, DC 20037-1526			GELIN, JEAN ALLAND	
			ART UNIT	PAPER NUMBER
			2681	7

DATE MAILED: 05/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/851,105

Applicant(s)

FUKUNISHI, TATSUYA

Examiner

Jean A Gelin

Art Unit

2681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

### A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4,5,10,11,16 and 17 is/are allowed.
- 6) ☒ Claim(s) 1-3,6-9,12-15 and 18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. This is in response to the Applicant's amendments and arguments filed on February 18, 2004 in which claims 4, 10, and 16 have been amended. Claims 1-18 are currently pending.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 6-9, 12-15, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakanishi et al. (US 5,701,597).

Regarding claims 1, 7, and 13 Nakanishi teaches a secondary-battery control circuit (figs. 1, and 10 illustrated at least two batteries in a wireless unit, and figs. 8 and 9 illustrated a battery pack having cells in series and at least two control units 33, 34), comprising: a first path supplying a first load current from one or more secondary batteries connected in series or parallel, to a system, and including a first cutoff switch (i.e., first path is power line 20 which is coupled to at least a switch that controls power, col. 7, lines 34-43, col. 7, lines 58-65); and a second path supplying a second load current from said one or more secondary batteries to the system (i.e., second path is power line 22), wherein said first cutoff switch is turned off if a voltage of said one or more secondary batteries is lower than a first predetermined voltage, or if the first load current is greater than a predetermined current, thereby cutting off the first load current

Art Unit: 2681

to the system (i.e., monitoring when to turn on and off base on amount of discharge col. 7, lines 31 to col. 8, line 58).

Regarding claims 2, 8, and 14, Nakanishi teaches wherein said second path includes a second cutoff switch controlled independently of said first cutoff switch (i.e., switch 42 or fuse 18 of fig. 10).

Regarding claims 3, 9, and 15, Nakanishi teaches, wherein said second cutoff switch is turned off if the voltage of said one or more secondary batteries is higher or lower than a second predetermined voltage (col. 8, lines 1-7).

Regarding claims 6, 12, and 18, Nakanishi teaches wherein said system, to which the second load current is supplied through said second path, includes a remaining-charge indicating IC (Integrated Circuit) used for indicating a remaining charge of said one or more secondary batteries, or a resetting IC used for resetting the system (col. 8, lines 8-23 and lines 49-67).

#### ***Allowable Subject Matter***

4. Claims 4, 5, 10, 11, 16, and 17 are allowed.

5. The following is a statement of reasons for the indication of allowable subject matter: claims 4, 10, and 16 have been rewritten as independent claims including all the limitations of their respective base claims. Therefore, claims 4, 5, 10, 11, 16, and 17 are allowed.

***Response to Arguments***

6. Applicant's arguments filed 2/28/04 have been fully considered but they are not persuasive.

The Applicant argues that Nakanishi fails to disclose the claimed invention as recited in claim 1. The Applicant further argues that Nakanishi a battery pack for a portable device. The Nakanishi battery pack includes two batteries connected to a main unit by arguably two different paths that include control switches. The Applicant further argues that Nakanishi discloses a technique for disconnecting one battery whenever it becomes significantly discharged than the other battery.

However, the Examiner believes that Nakanishi discloses the claimed invention as argued by the Applicant. In contrast to the Applicant argument that claim one recites two paths for one battery, claim one calls for a first path supplying one or more secondary batteries and second path supplying one or more secondary batteries. Therefore, it is clear that the first path and the second path supply more than one battery; the first path and the second path are not limited to only one battery as argued by the Applicant.

In contrast to the Applicant's argument, Nakanishi further teaches in col. 7, lines 31 to col. 8, line 58 programming the MCU to control when to turn on and off switches according to the amount of battery discharge indicated by the voltage detector. Based on this teaching, it is clear that that the system of Nakanishi can perform the function wherein said first cutoff switch is turned off if a voltage of said one or more secondary

batteries is lower than a first predetermined voltage, or if the first load current is greater than a predetermined current, thereby cutting off the first load current to the system.

The Applicant further argues that claims 2, 3, and 6 depend from claim 1 and are allowable along with claim 1. Given that the rejection of claim 1 remains for the reason recited above, therefore claims 2, 3, and 6 are rejected for same reason recited in the above Office Action.

The Applicant further argues that claim 9, 12-15, and 18 are allowable for the same reasons set forth in claim 1. However, the Examiner argues that claim 1 is rejected for the reasons set forth above. Therefore, the rejections of claims 9, 12-15, and 18 are maintained as repeated above.

In view of the Examiner's arguments recited above, these rejections are made final.

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2681

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean A Gelin whose telephone number is (703) 305-4847. The examiner can normally be reached on 9:00 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Erika A Gary can be reached on (703) 308-0123. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JGelin  
May 15, 2004

**JEAN GELIN**  
**PATENT EXAMINER**  
*Jean A Gelin*